

IN THE CLAIMS

1 1. (Currently Amended) A coating for a smoothing and/or polishing element,
2 particularly a flexible grinding wheel, provided with a flexible abrasive insert, for smoothing
3 and polishing stone material, said coating including an epoxy resin with poli-sulfuric polymers
4 in a percentage between 34 and 52% by weight, a product to make the mixture thixotropic, in
5 percentage between 12 and 19% by weight, primary amines, in percentage between 9 and 18%
6 by weight, and synthetic diamond, treated by a polyvinyl-formal primer.

1 2. (Previously Presented) The coating according to claim 1, wherein said coating has a
2 thickness between 0.3 and 1.2 mm.

1 3. (Previously Presented) The coating according to claim 1, wherein said epoxidic
2 resins with poli-sulfuric polymers are present in a percentage of 45% by weight.

1 4. (Previously Presented) The coating according to claim 1, wherein said product to
2 make the mixture thixotropic is present in a percentage of 15% by weight.

1 5. (Previously Presented) The coating according to claim 1, wherein said primary
2 amines are present in percentage of 15% by weight.

1 6. (Previously Presented) The coating according to claim 1, wherein said synthetic
2 diamond, treated by a polyvinyl-formal primer, is present in a percentage of 25% by weight.

1 7. (Previously Presented) A grinding wheel, including a coating according to claim 1.

1 8. (Previously Presented) The coating according to claim 1, wherein said epoxy resins
2 with poli-sulfuric polymers is comprised of a epoxy resin including a concentration and resin.

1 9. (Currently Amended) The coating according to claim 1, wherein said product to
2 make the mixture thixotropic is comprised of carbon and corundum, having a chemical formula
3 $\text{SiO}_2 + 3\text{C} = \text{SiC} + 2\text{CO}$, the corundum is oven-heated at a temperature of 2000°C and the
4 resulting product is used in granulometries and ranges from 6MESCH mesh to 60 MESCH
5 mesh as a function of polishing phases.

1 10. (Previously Presented) The coating according to claim 1, wherein said primary
2 amines are comprised of a resin-hardener working as a catalyst.

1 11. (Previously Presented) The coating according to claim 1, wherein said polyvinyl-
2 formal primer is comprised of a drip-feed liquid to improve the efficacy of the resin.